

Invasive Plants in Pennsylvania

Water Lettuce

Pistia stratiotes L.



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Description:

Water lettuce grows in free-floating rosettes of thick, light green, hairy, ridged leaves — resembling a floating head of open lettuce. These leaves are typically one to six inches long.

Biology and Spread:

Flowers are small and easily overlooked, occurring in the center of the rosette. Water lettuce is insect-pollinated, giving rise to green berries. This species also exhibits vigorous vegetative reproduction.

Background:

There is still debate among experts as to whether or not this plant is native to the U.S. It was described in 1765 in Florida by botanist John Bartram. It may be native to Africa or South America and was transported to the U.S. in the ballast of the ships of early European explorers.

Range:

Currently, this species can be found in the south and western U.S., as well as Ohio, New York, New Jersey, Maryland and Delaware. To date, this species is not known to occur in Pennsylvania.



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Habitat:

Water lettuce can occur in rivers, lakes, ponds, canals or other slow moving or still bodies of water.

Ecological Threat:

This species can form large, tightly grouped mats on the surface of the water that can prevent fishing and boating and limit other aquatic plant species. Water lettuce has also been shown to reduce oxygen levels in water, limiting fish and other aquatic wildlife habitat.



USDA Agricultural Research
Service Archive

How to Control this Species:

Mechanical control methods that chop and remove water lettuce from the surface of the water to be transported to the shore for disposal can be used to control this species.

Aquatic herbicides have been shown to also slow the spread of water lettuce; however, extreme care must be taken in applying herbicides to wetland habitats. Be sure to use herbicides that readily break down in water and are not harmful to other aquatic plants or animals.

Biological control agents, including a weevil and a number of *Lepidoptera* species, have been used to control water lettuce.

More information can be found at: <http://wiki.bugwood.org/Archive:BCIPEUS/Waterlettuce>

References:

University of FL Center for Aquatic and Invasive Plants:
<http://plants.ifas.ufl.edu/node/328>

USDA PLANTS Database:
<http://plants.usda.gov/java/profile?symbol=PIST2>

Bugwood Wiki:
<http://wiki.bugwood.org/Archive:BCIPEUS/Waterlettuce>

Center for Invasive Species:
<http://www.invasive.org/browse/subinfo.cfm?sub=3064>

Native Alternatives:

Water lettuce is often sold by aquarium suppliers, landscapers and nurseries. Native alternatives to this species include:

Common duckweed (*Lemna minor*)



Richard Old
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Longleaf pondweed (*Potamogeton nodosus*)



Graves Lovell
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For More Information:

To learn more about invasive species in Pennsylvania, check out the following site:

DCNR Invasive Species Site:
<http://www.dcnr.state.pa.us/conservationscience/invasivespecies/index.htm>